AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1-15. (Canceled)

16. (Currently Amended) A process for forming an insulating film on the surface of a substrate for an electronic device, comprising the steps of:

cleaning the substrate with plasma based on a ~~first process~~ cleaning gas comprising ~~at least~~ a rare gas; ~~and~~

oxidizing the substrate with plasma based on ~~a second process~~ an oxidizing gas comprising ~~at least~~ a rare gas and oxygen, to thereby form an oxide film thereon;

nitriding the oxide film with plasma based on a nitriding gas comprising a rare gas and nitrogen after the oxidizing; and

treating the oxide film with plasma based on a treating gas comprising hydrogen gas after the nitriding;

wherein the cleaning and oxidizing ~~steps~~ are conducted under the same operation principle; and

the cleaning and oxidizing ~~steps~~ are conducted in the same vessel without exposure of the substrate to air.

17. (Currently Amended) A process for forming an insulating film according to claim 16, wherein the ~~first process~~ cleaning gas comprises hydrogen gas.

18. (Currently Amended) A process for forming an insulating film according to claim 16, wherein the ~~first step~~ cleaning is conducted at a pressure of 7-133 Pa.

19. (Currently Amended) A process for forming an insulating film according to claim 16, wherein the ~~first and second steps~~ cleaning and oxidizing are conducted in the same processing chamber or in different processing chambers under the same operation principle.

20-22. (Canceled)

23. (Currently Amended) A process for forming an insulating film according to claim **[[21]]** 16, which further comprises ~~a step to be conducted after the fourth step, of~~ forming a High-k film after the treating.

24. (Canceled)

25. (Currently Amended) A process for forming an insulating film on the surface of a substrate for electronic device, comprising the steps of:

cleaning the substrate with plasma based on a ~~first process~~ cleaning gas comprising ~~at least~~ a rare gas; ~~and~~

nitriding the substrate with plasma based on a ~~second process~~ nitriding gas comprising ~~at least~~ a rare gas and nitrogen, to thereby form a nitride film thereon;

oxidizing the nitride film with plasma based on an oxidizing gas comprising a rare gas and oxygen after the nitriding; and

treating the nitride film with plasma based on a treating gas comprising hydrogen gas after the oxidizing;

wherein cleaning and nitriding ~~steps~~ are conducted under the same operation principle; and

the cleaning and nitriding ~~steps~~ are conducted in the same vessel without exposure of the substrate to air.

26. (Currently Amended) A process for forming an insulating film according to claim 25, wherein the ~~first process~~ cleaning gas comprises hydrogen gas.

27. (Currently Amended) A process for forming an insulating film according to claim 25, wherein the ~~first step~~ cleaning is conducted at a pressure of 7-133 Pa.

28. (Currently Amended) A process for forming an insulating film according to claim 25, wherein the ~~first and second steps~~ cleaning and nitriding are conducted in the same processing chamber or in different processing chambers under the same operation principle.

29-31. (Canceled)

32. (Currently Amended) A process for forming an insulating film according to claim 31, which further comprises ~~a step to be conducted after the fourth step, of~~ forming a High-k film after the treating.

33-41. (Canceled)

42. (Currently Amended) A process for forming an insulating film according to claim **[[**20**]]** 16, wherein the ~~third step~~ nitriding and/or treating is conducted in a processing chamber that is the same as or different from the processing chamber wherein the ~~first and second steps~~ cleaning and oxidizing are conducted.

43-44. (Canceled)

45. (Currently Amended) A process for forming an insulating film according to claim **[[**29**]]** 25, wherein the ~~third step~~ oxidizing and/or treating is

conducted in a processing chamber that is the same as or different from the processing chamber wherein the ~~first and second steps~~ cleaning and nitriding are conducted.

46-53. (Canceled)

54. (Currently Amended) A process for forming an insulating film according to claim 16, wherein the plasma is generated using microwave irradiation by using a plane antenna member having a plurality of slots.

55. (Currently Amended) A process for forming an insulating film according to claim 25, wherein the plasma is generated using microwave irradiation by using a plane antenna member having a plurality of slots.

56. (Currently Amended) A process for forming an insulating film according to claim 23, wherein the High-k film comprises ~~at least~~ one material selected from the group consisting of Al_2O_3, ZrO_2, HfO_2, Ta_2O_5, ZrSiO, HfSiO and ZrAlO.

57. (Canceled)

58. (Currently Amended) A process for forming an insulating film according to claim 32, wherein the High-k film comprises ~~at least~~ one material

selected from the group consisting of Al_2O_3, ZrO_2, HfO_2, Ta_2O_5, ZrSiO, HfSiO and ZrAlO.

59-63. (Canceled)

64. (Previously Presented) A process for forming an insulating film according to claim 16 wherein the insulating film is a gate insulator.

65. (Previously Presented) A process for forming an insulating film according to claim 25 wherein the insulating film is a gate insulator.

66. (Withdrawn) A semiconductor device manufacturing system for conducting a process for forming an insulating film on the surface of a substrate for an electronic device, the system comprising:

a cassette containing a substrate;

a transportation chamber for transporting the substrate;

a first arm for disposing the substrate in the transportation chamber;

a plurality of plasma processing units for conducting treatments on the substrate, which is to be introduced into the plasma processing unit via the arm connected to the transportation chamber;

a load lock unit for conducting the communication and isolation between the cassette and the transportation chamber via a second arm;

wherein the plasma processing unit conducts a process comprising a first step of cleaning the substrate with plasma based on a first process gas comprising at least a rare gas; and a second step of oxidizing or nitriding the substrate with plasma based on a second process gas, to thereby form an oxide or nitride film thereon; wherein the first and second steps are conducted under the same operation principle.

67. (Withdrawn) A semiconductor device manufacturing system according to claim 66, which further comprises a heating unit for operating heating treatment.

68. (Withdrawn) A semiconductor device manufacturing system according to claim 66, which further comprises a heating reaction furnace for conducting heating treatment on the substrate.

69. (Withdrawn) A semiconductor device manufacturing system according to claim 66, wherein any of the plasma processing unit conducts a fourth step of treating the insulating film with plasma based on a fourth process gas comprising hydrogen gas.

70. (Withdrawn) A semiconductor device manufacturing system according to claim 66, wherein the heating unit conducts a step of forming a High-k film.

71. (Previously Presented) A process for forming an insulating film according to claim 16 wherein the substrate is subjected to wet cleaning prior to the plasma cleaning.

72. (Previously Presented) A process for forming an insulating film according to claim 25 wherein the substrate is subjected to wet cleaning prior to the plasma cleaning.